

# Characterization and Prioritization of the Southeastern Ecological Framework

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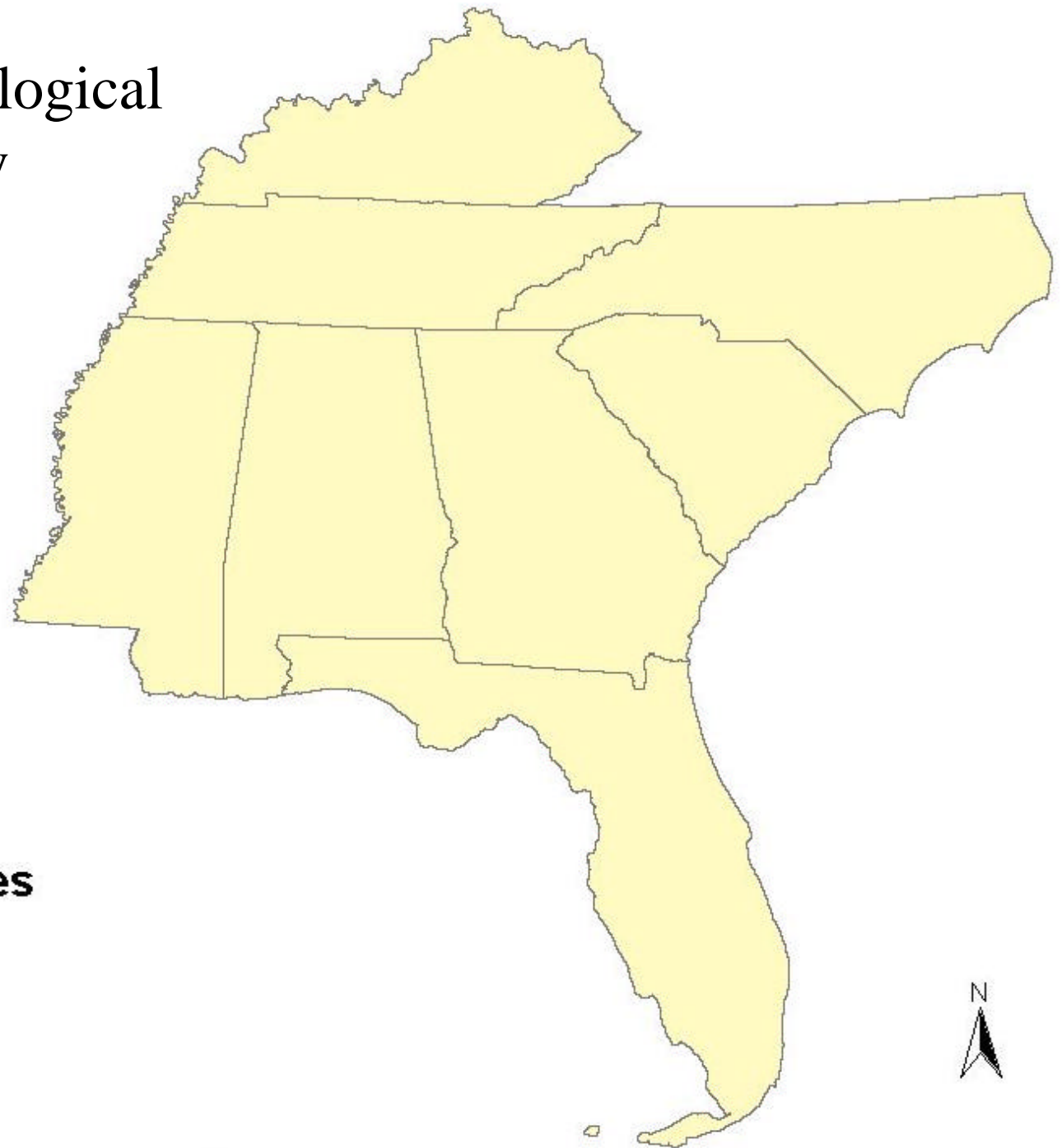
University of Florida

# Areas of Interest Prioritized

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- Entire Region (EPA Region 4)
- Southeast Ecological Framework (SEF)
- Optimized Ecological Hubs within the SEF
- Landscape Linkages Connecting Hubs within the SEF

# Southeastern Ecological Framework Study Area

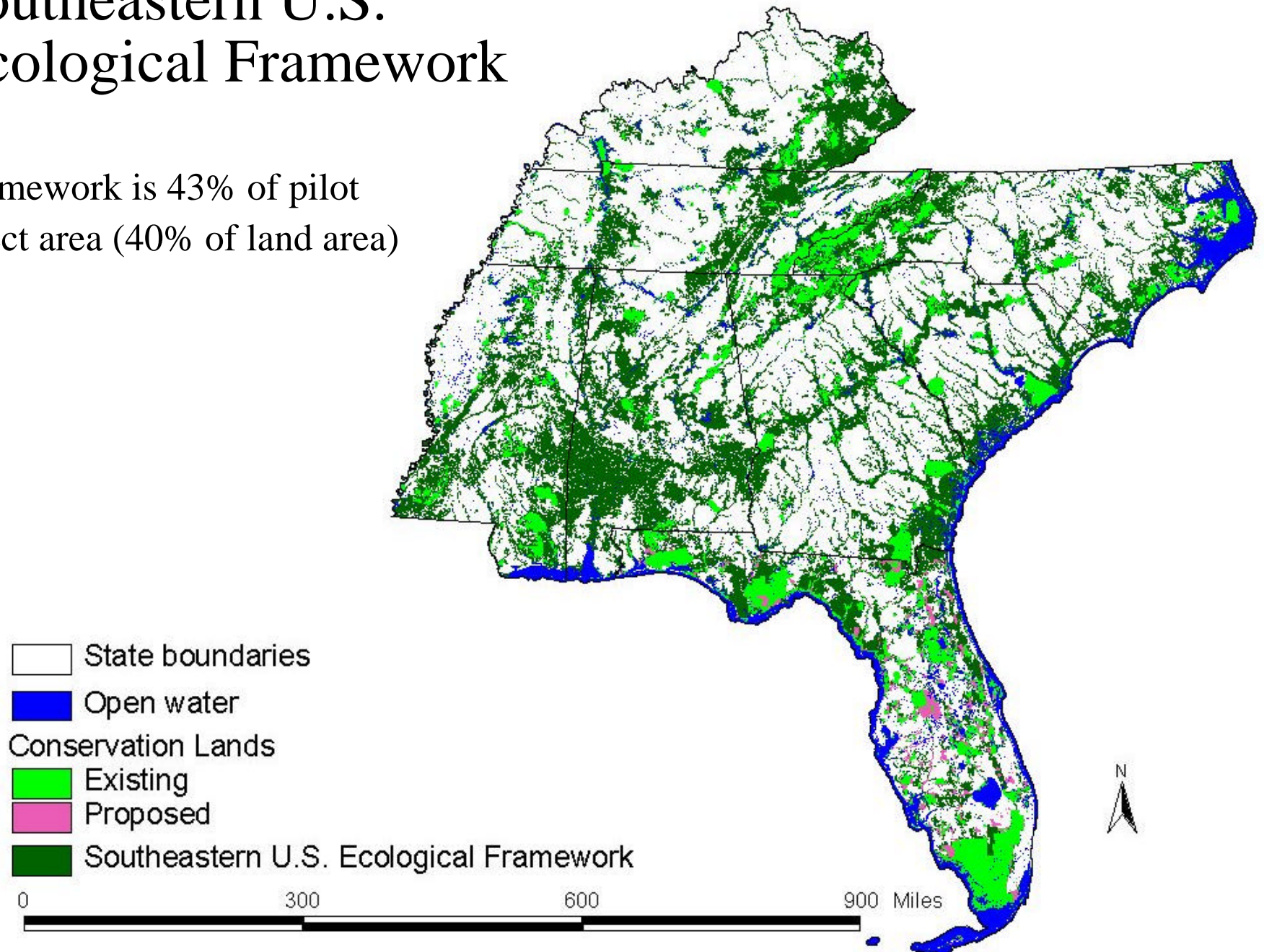


 **State boundaries**  
**EPA Region 4**



# Southeastern U.S. Ecological Framework

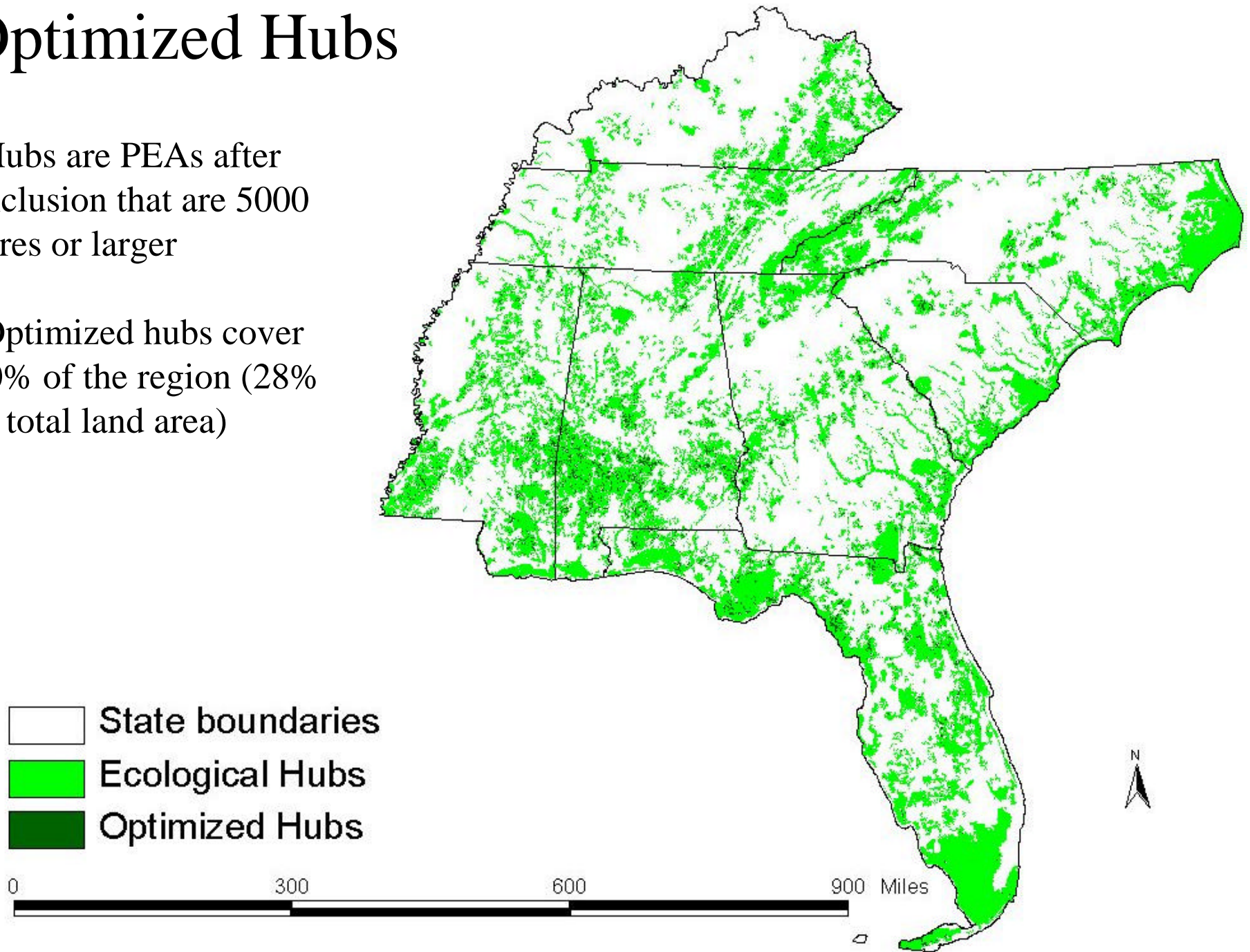
- Framework is 43% of pilot project area (40% of land area)



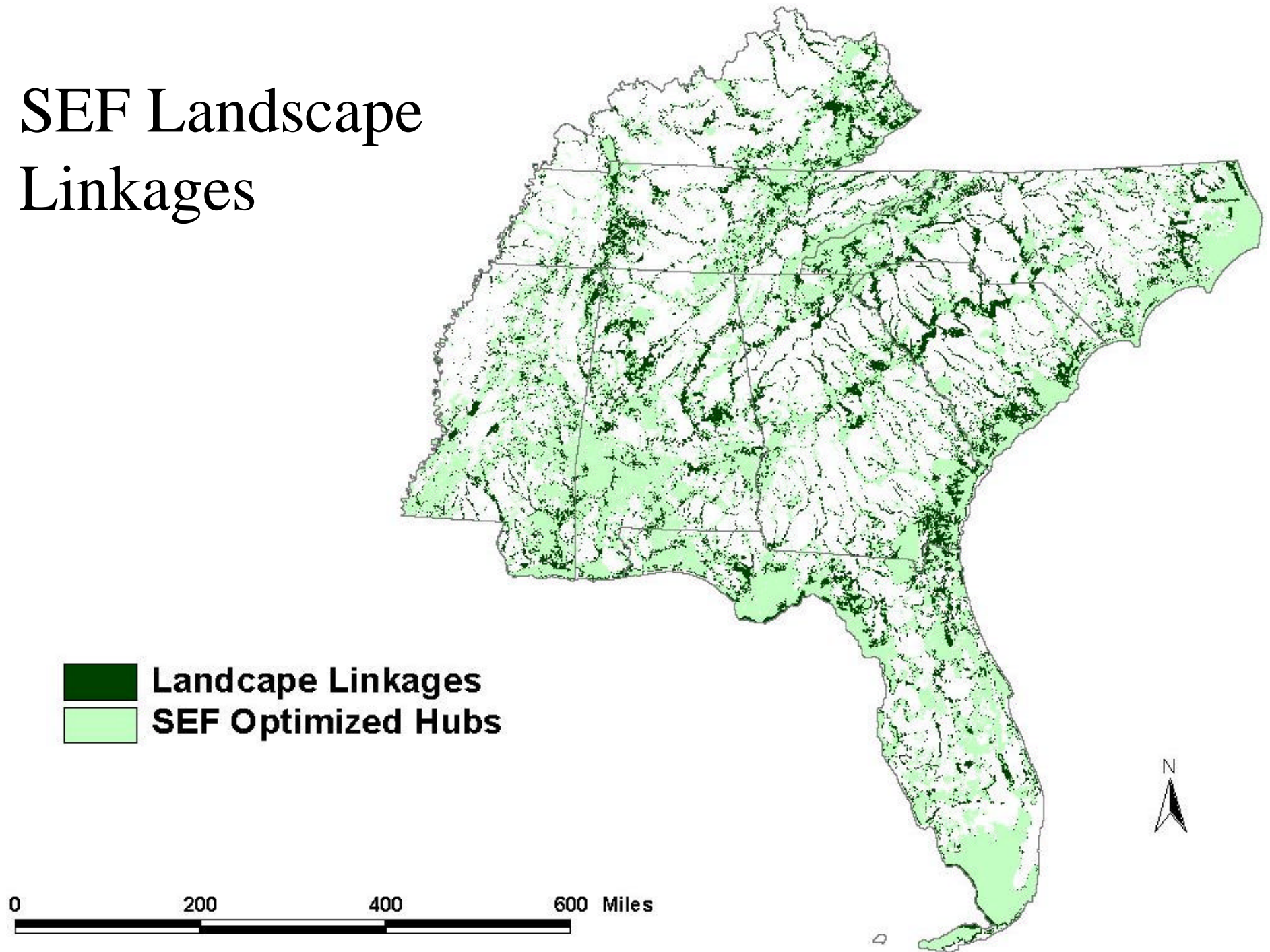


# Optimized Hubs

- Hubs are PEAs after exclusion that are 5000 acres or larger
- Optimized hubs cover 30% of the region (28% of total land area)



# SEF Landscape Linkages



# Prioritization Categories

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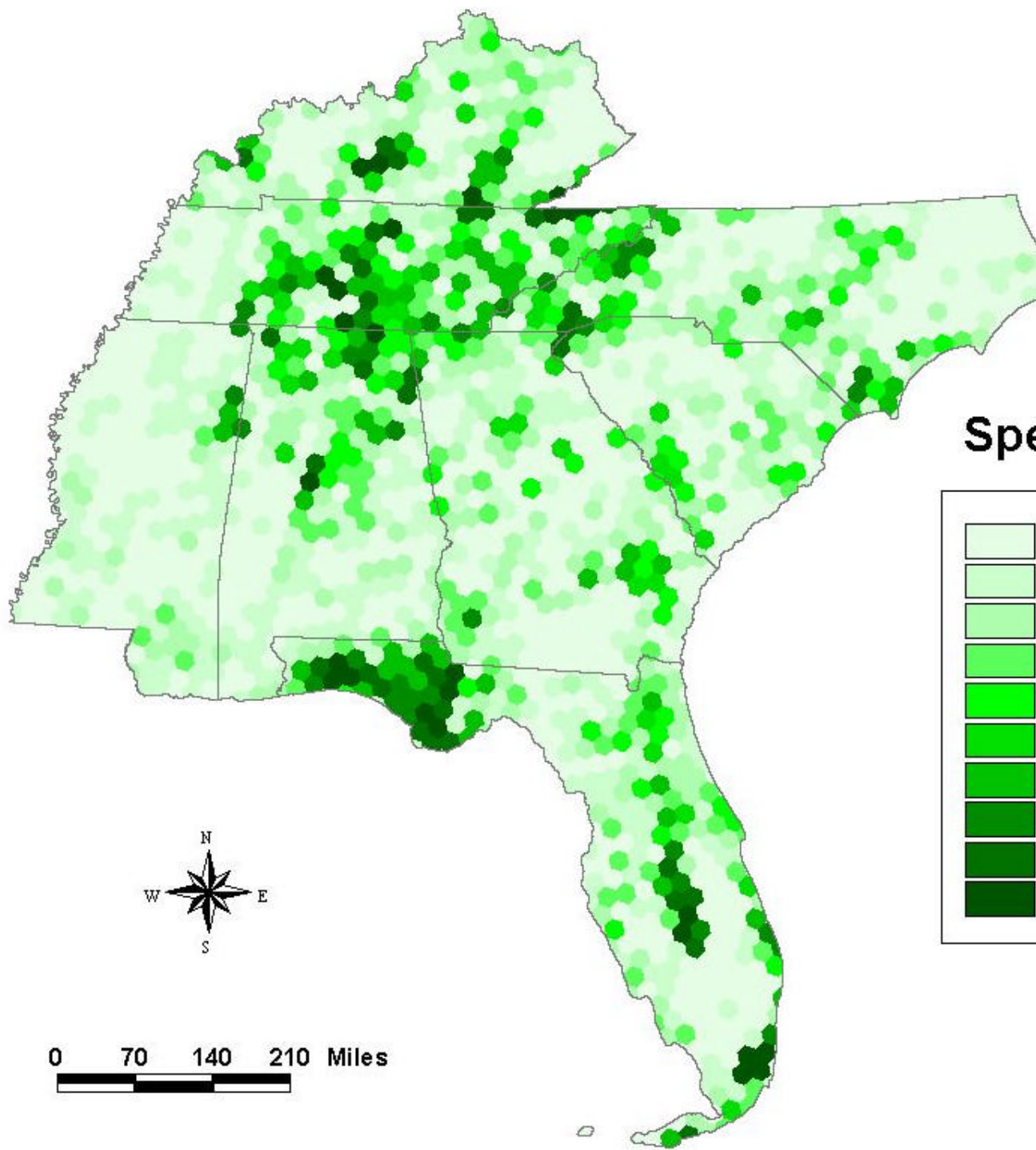
- Biodiversity
- Ecosystem Services
- Threats to Ecological Integrity
- Recreation Potential

# Biodiversity Prioritization Criteria

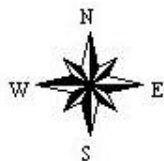
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- 1) Conservation Lands Size Classes and Proximity
- 2) Interior Forests
- 3) Old Growth and Significant Longleaf Pine Forest Stands
- 4) Imperiled Species Hotspots
- 5) Listed Species Hotspots
- 6) At-Risk Aquatic Species by Watersheds (HUCs)
- 7) Critical Watersheds for Aquatic Biodiversity
- 8) Black Bear Habitat Suitability Analysis
- 9) Size Classification of Priority Ecological Area after Exclusion



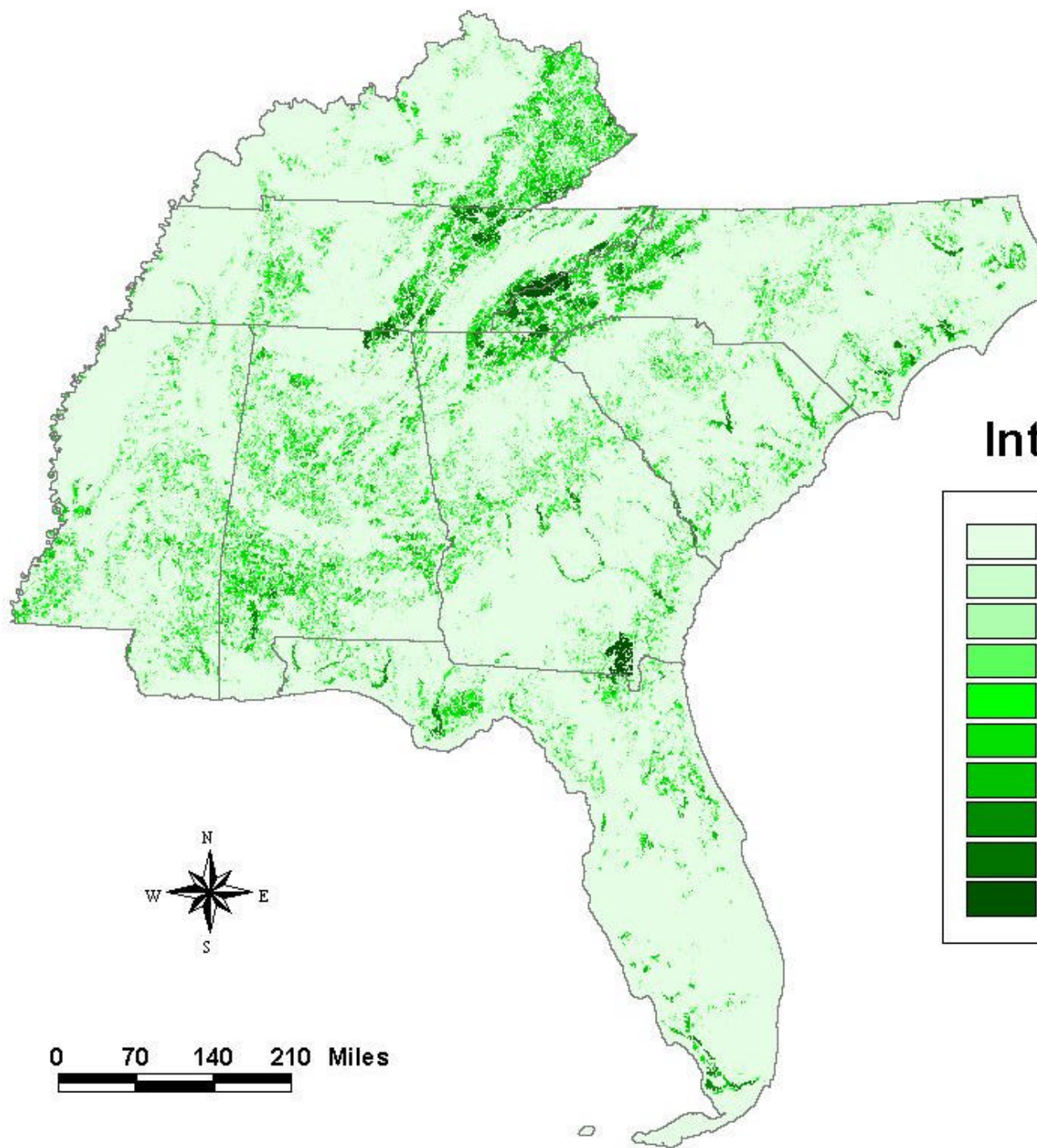


## Imperiled Species Hotspots



0 70 140 210 Miles

A scale bar with markings for 0, 70, 140, and 210 miles.



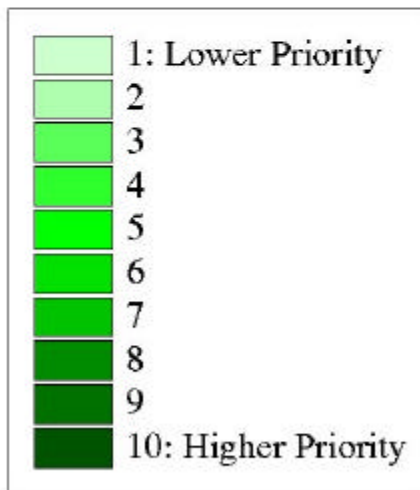
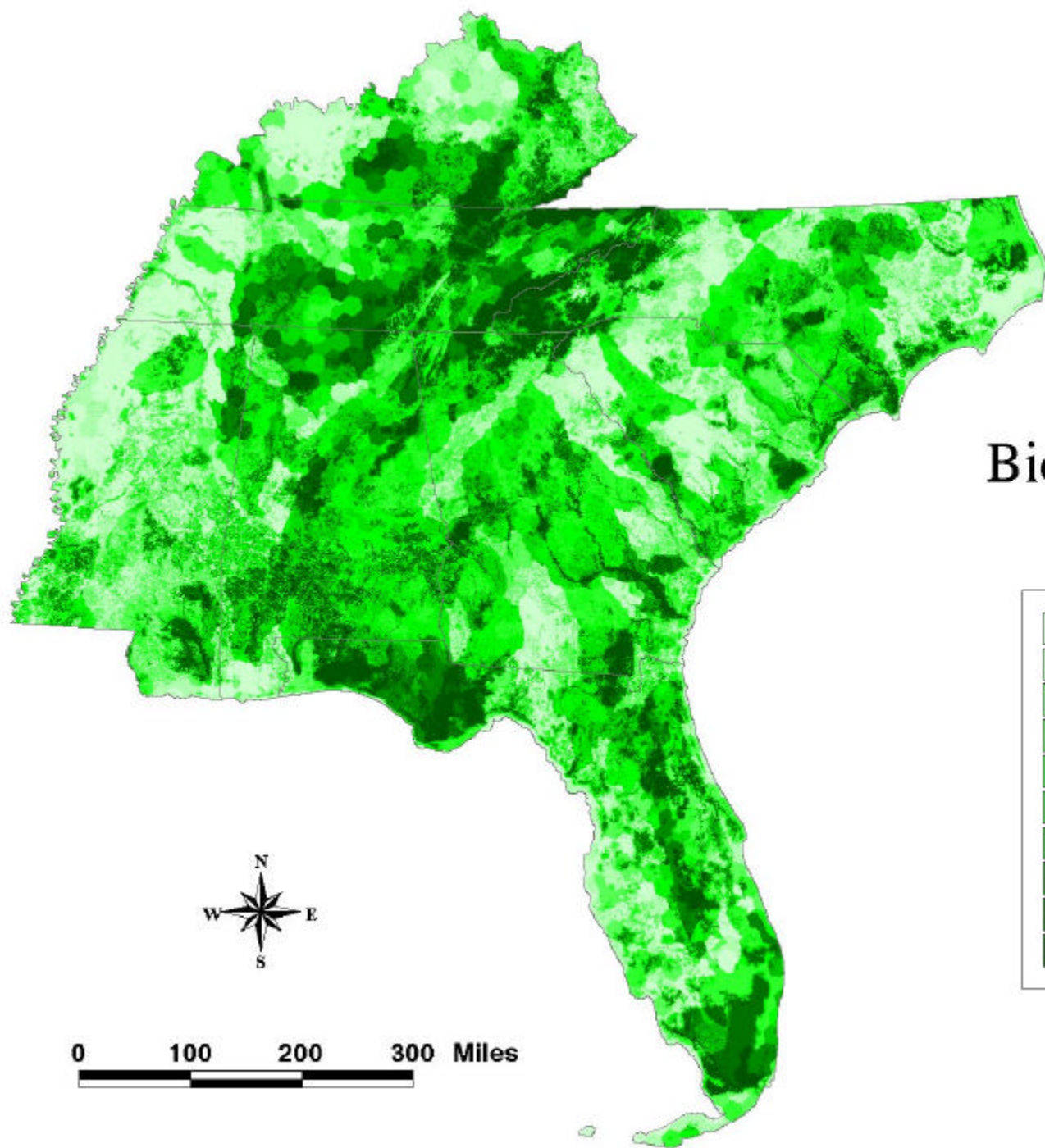
## Interior Forests

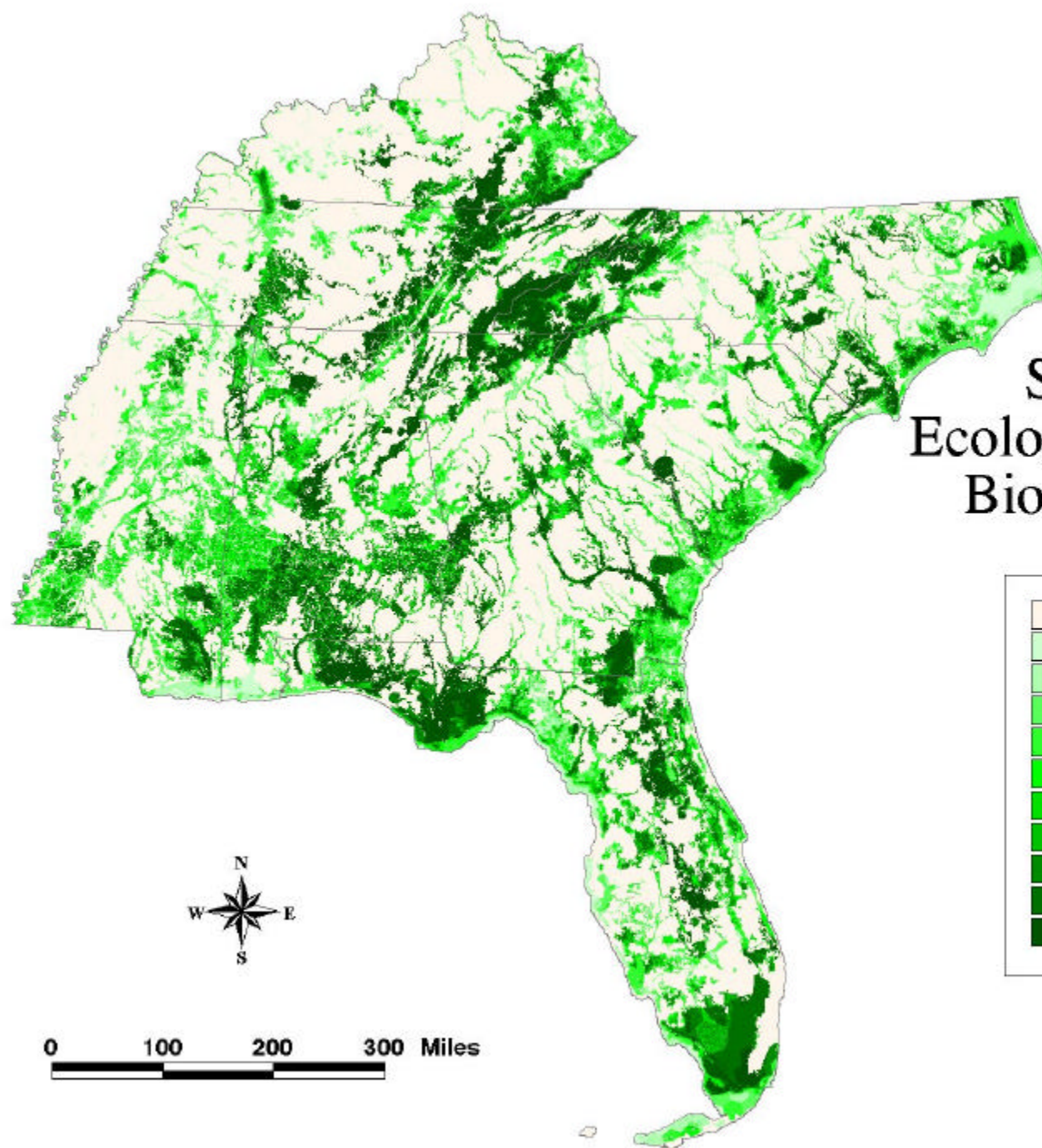


0 70 140 210 Miles



## Regional Biodiversity MUA





## Southeastern Ecological Framework Biodiversity MUA



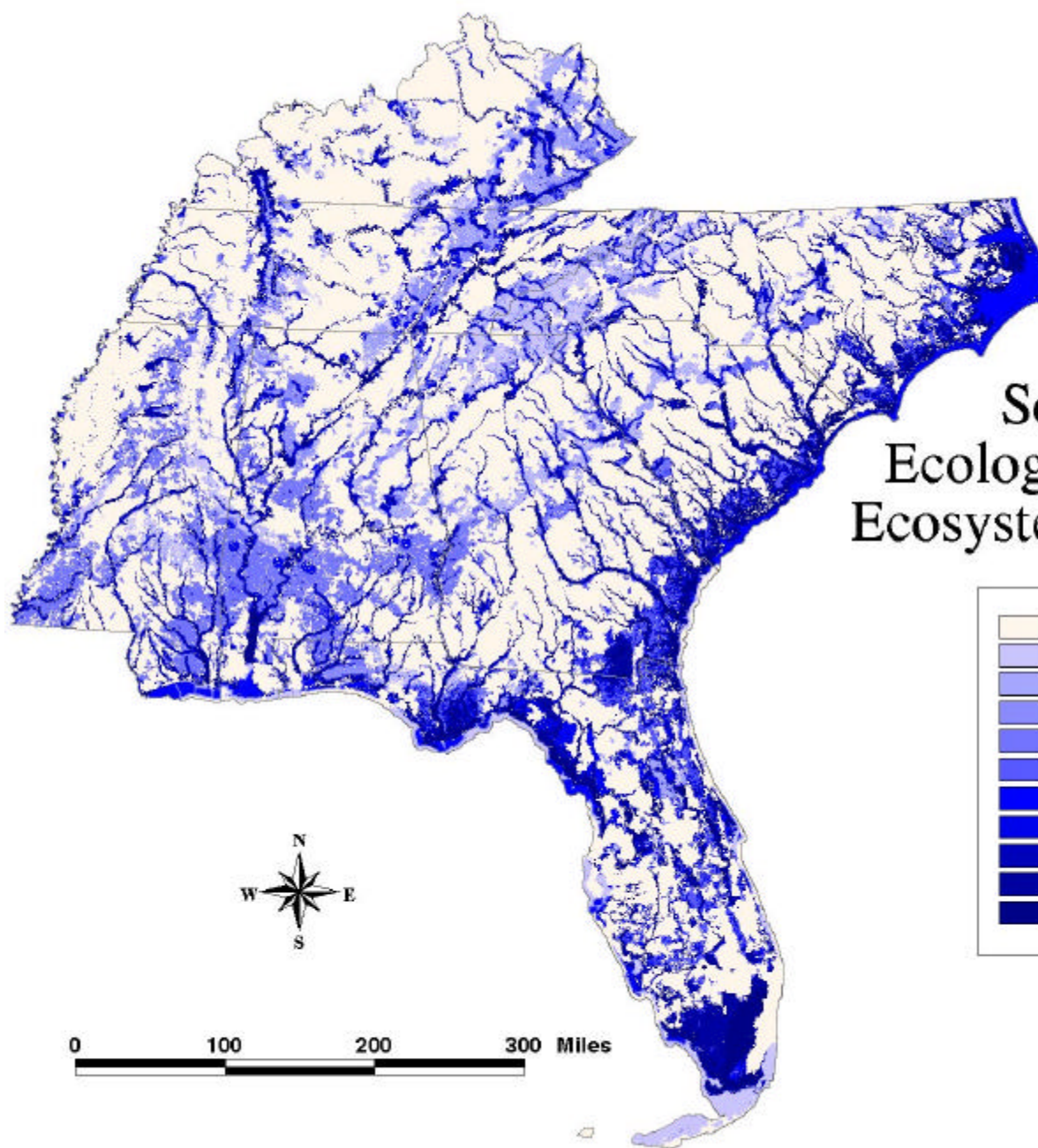
0 100 200 300 Miles

# Ecosystem Services Prioritization Criteria

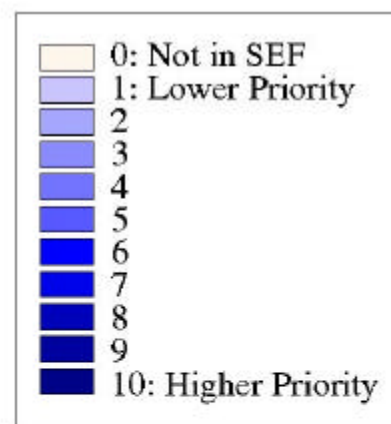
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- 1) Surficial Aquifer Areas Vulnerable to Pollution
- 2) Size & Proximity to Wetlands
- 3) Surface Water Source Priorities
- 4) Ground Water Source Priorities
- 5) Major and Wild and Scenic River Buffers
- 6) Coastal Storm Protection Areas
- 7) Shellfish Harvest Area Buffers





## Southeastern Ecological Framework Ecosystem Services MUA



# Criteria to Characterize Threats

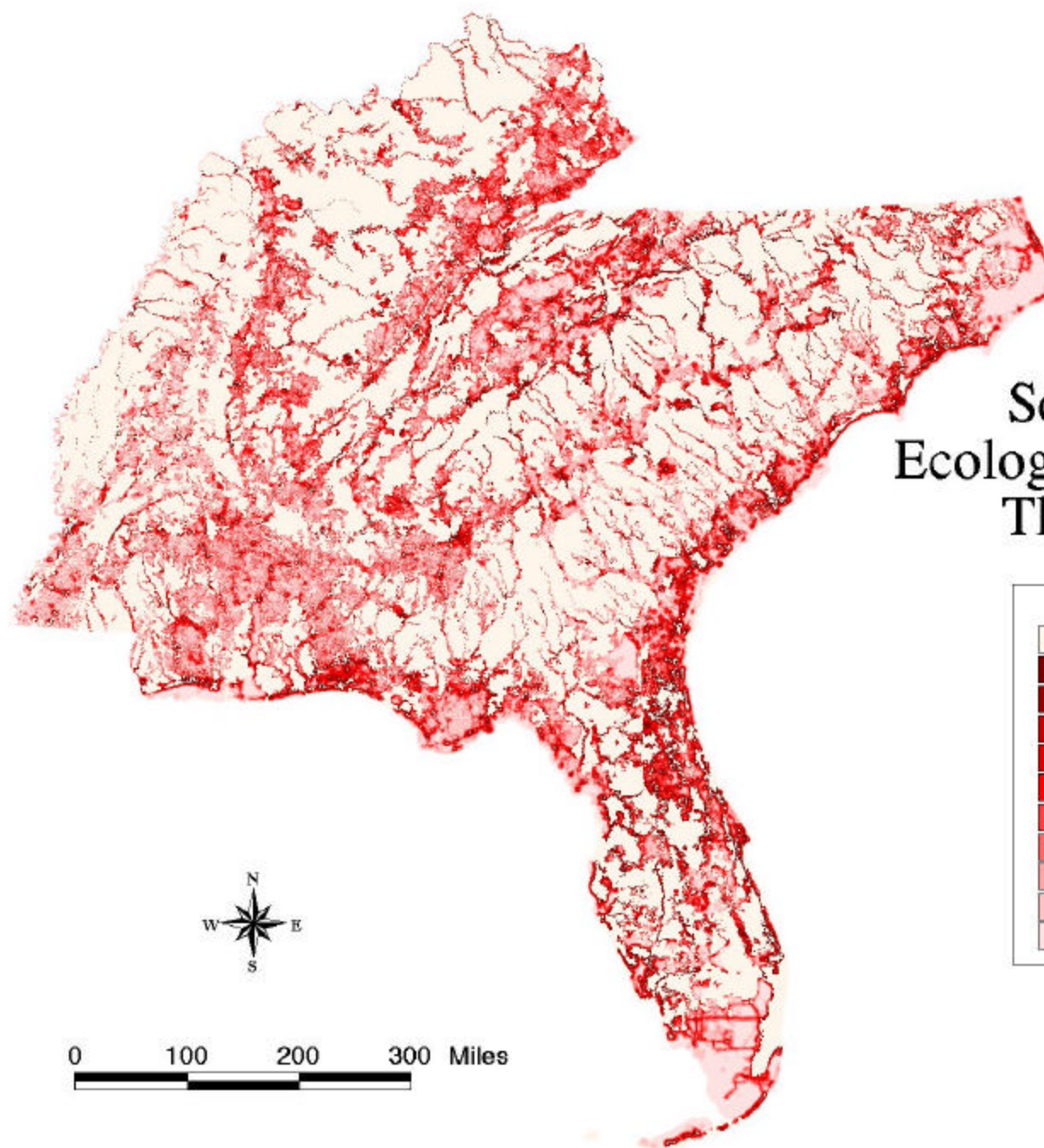
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## 1) Context Analysis: Landscape Viability Index

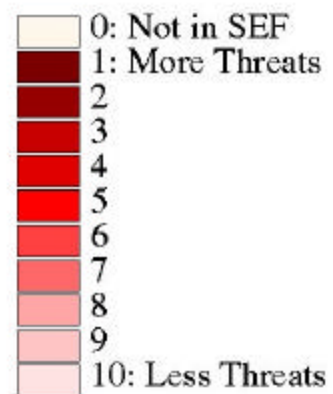
- proximity to areas of intensive land uses
- proximity to major roads (primary & secondary)
- road density
- density of intensive land uses

## 2) Urban Growth Potential Model

- distance from roads
- distance from urban areas
- urban density at a small scale
- urban density at a large scale



## Southeastern Ecological Framework Threats MUA

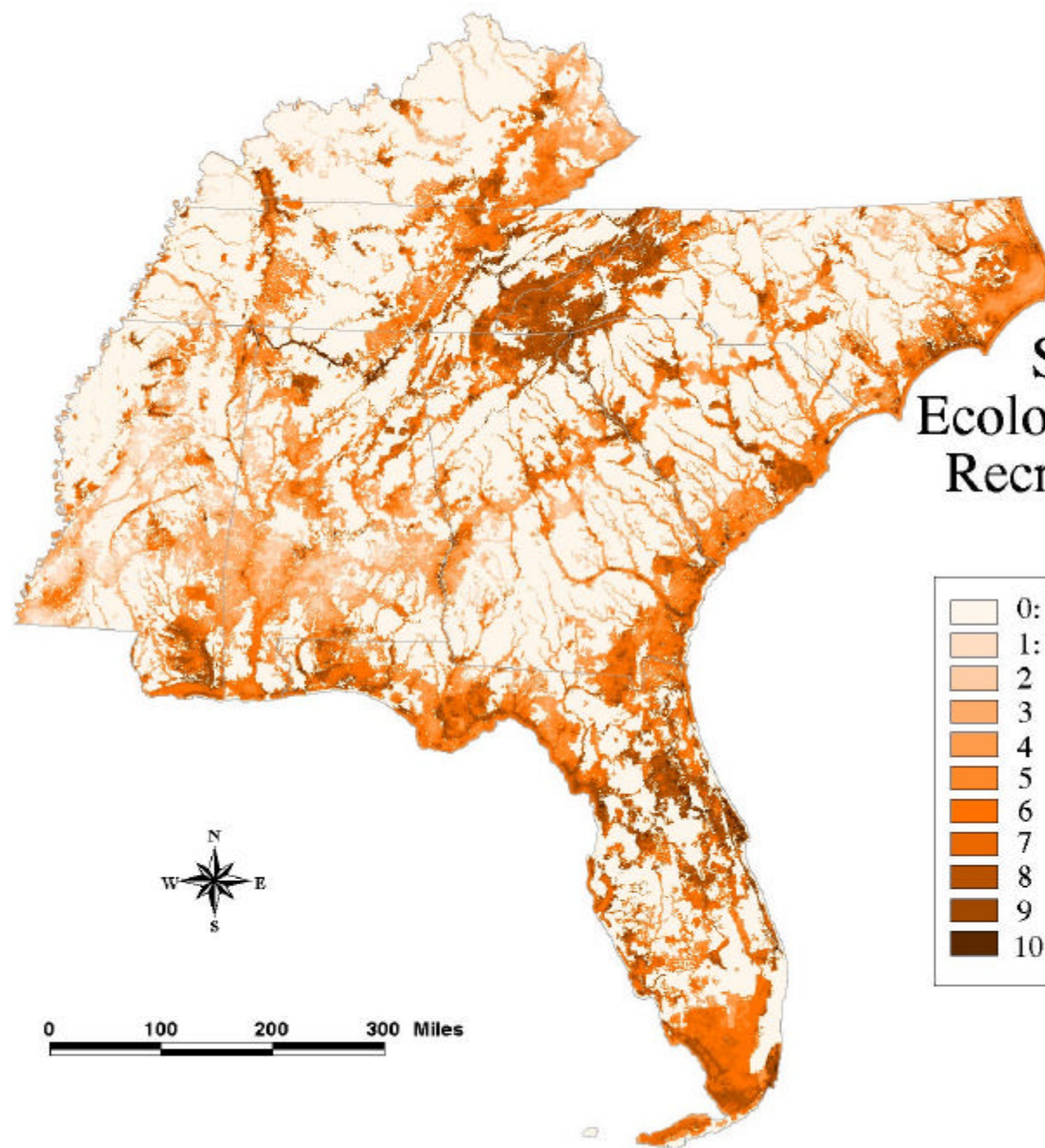


# Recreation Potential Prioritization Criteria

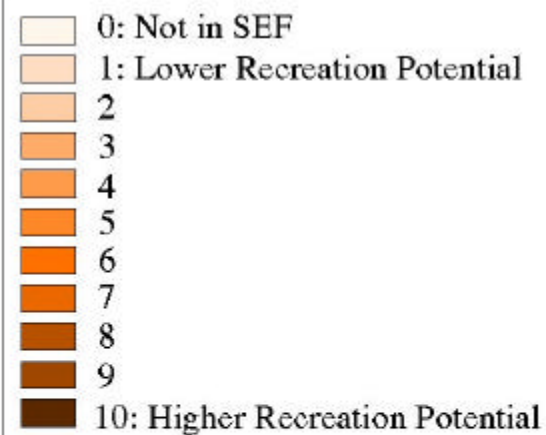
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- 1) Influence of Urban Areas
- 2) Influence of Conservation Lands
- 3) Water Based Recreation
- 4) Influence of Points of Interest





## Southeastern Ecological Framework Recreation Potential MUA





# Needs: Where Do We Go From Here?

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- 1) Priority Areas for protecting viable populations of all species of conservation interest
- 2) Critical areas for protecting water resources
- 3) Critical areas significantly affected by pollution or capable of pollution abatement (e.g., carbon sequestration)
- 4) How do we deal with climate change?